

Docket No. 500.43486X00
Serial No. 10/772,386
Office Action dated May 17, 2006

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REMARKS

I. Introduction

By the present Amendment, claims 1, 3, 5, 6, 9, 10, 16, 21, and 24 have been amended. Claims 2, 4, and 22 have been canceled. Accordingly, claims 1, 3, 5 – 12, 14 – 21, and 24 remain pending in the application. Claims 1, 9, 16, 21, and 24 are independent.

II. Office Action Summary

In the Office Action of May 17, 2006, claims 1 – 3, 11, and 14 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 6,311,819 issued to Stromme, et al. ("Stromme"). Claims 4 – 9, 15, and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Stromme in view of U.S. Patent 4,015,703 issued to Keller. Claim 12 was rejected under 35 U.S.C. §103(a) as being unpatentable over Stromme in view of U.S. Patent 4,993,700 issued to Winkler. Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Stromme in view of Keller, and further in view of U.S. Patent 4,837,064 issued to Tschudin-Mahrer. Claims 17 – 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Stromme in view of U.S. Patent 3,966,047 issued to Steiner. Claims 21 and 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Stromme in view of U.S. Patent 5,486,063 issued to Fox, et al. ("Fox").

The cancellation of claims 2, 4, and 22 has rendered some of these particular grounds of rejection moot. Regarding the remaining claims, these rejections are respectfully traversed.

The Examiner's indication that claim 16 would be allowable, if rewritten in independent form to include all the limitations of the base claim and any intervening claims, is noted with appreciation.

Docket No. 500.43486X00
Serial No. 10/772,386
Office Action dated May 17, 2008

III. Rejections Under 35 USC §102

Claims 1 – 3, 11, and 14 were rejected under 35 U.S.C. §102(b) as being anticipated by Stromme. Regarding this rejection, the Office Action alleges that Stromme discloses an apparatus for handling sheets that includes a sheet transfer member which is moveable and has a surface that is contactable with one sheets so that the sheet is transferred by the sheet transfer member. The Office Action also alleges that Stromme discloses a sheet supporting surface area that is contactable with one of sheets transferred by the sheet transfer member. Information reading sensors are arranged in the evaluation region to face one of the sheets transferred by the sheet transfer member. Sensors are also indicated as being provided in the evaluation region in order to securely read information in their information reading range as the sheet proceeds through the information reading point. Applicants respectfully disagree.

As amended, independent claim 1 defines an apparatus for handling sheets that comprises:

a sheet transfer member being movable, and having a transfer surface contactable with one of the sheets so that the one of the sheets is transferred by the sheet transfer member,

a sheet transfer member being movable, and having a transfer surface contactable with one of the sheets so that the one of the sheets is transferred by the sheet transfer member,

a sheet supporting surface area being contactable with the one of the sheet transferred by the sheet transfer member, said sheet supporting surface extending to be contactable with the one of the sheet between the transfer surface and the information reading point, and

an information reader arranged to face to the one of the sheet transferred by the sheet transfer member and having in an information reading range including an information reading point, in which reading range an information is securely readable from the one of the sheets,

Docket No. 500.43486X00
Serial No. 10/772,386
Office Action dated May 17, 2006

wherein as seen in a view direction perpendicular to a thickness direction of the one of the sheets and a transferred direction of the one of the sheets transferred by the sheet transfer member, a tangential line of a boundary point of the transfer surface of the sheet transfer member from which boundary point the one of the sheets starts to separate away from the transfer surface extends in a side area of an imaginary straight line passing the information reading point and the boundary point, which side area including the sheet supporting surface area.

The apparatus of independent claim 1 includes a sheet transfer member, a sheet supporting surface, and an information reader. The sheet transfer member is capable of being moved and has a transfer surface that can come into contact with one of the sheets such that the sheet can be transferred by the sheet transfer member. Additionally, the sheet supporting surface extends so that it is contactable with the sheet between the transfer surface and the information reading point. The information reader is arranged so that it faces the sheet being transferred and has an information reading range that includes an information reading point. When viewed in a direction perpendicular to a thickness direction of one of the sheets and a transferred direction of the sheet transferred by the sheet transfer member, a tangential line of a boundary point of the transfer surface of the sheet transfer member from which the sheet starts to separate away from the transfer surface extends in a side area of an imaginary straight line passing the information reading point and the boundary point with the side area including the sheet supporting surface area. According to the apparatus of independent claim 1, it is possible to securely read information from sheets within the reading range.

The Office Action indicates that Stromme discloses all the limitations recited in independent claim 1. This is not the case, however. At the outset, Applicants note that independent claim 1 has been amended to include the subject matter previously recited in claims 2 and 4. The Office Action admits that Stromme does not disclose

Docket No. 600.43486X00
Serial No. 10/772,386
Office Action dated May 17, 2006

all the limitations of claim 4 and places reliance on Keller for disclosing the features that are not shown.

Accordingly, independent claim 1 cannot be anticipated by Stromme.

Regarding the combination of Stromme and Keller to support a rejection under 35 U.S.C. §103, Applicants further submit that, as amended, independent claim 1 recites features that are not shown or suggested by the art of record. At the outset, Applicants would like to point out that a *prima facie* case of obviousness must be made in order to support a rejection under 35 U.S.C. §103. According to the Federal Circuit and the M.P.E.P., a *prima facie* case of obviousness requires that three basic criteria be met. First, there must be some suggestion or motivation in the primary reference to modify, combine, or seek out the teachings of a secondary reference. Second, there must be a realistic expectation of success from combining the two references. Finally, the prior art references must clearly teach or suggest all the claim limitations. See M.P.E.P. §706.02(j). The Federal Circuit has consistently supported the requirements of the M.P.E.P. In stating, for example, that "[i]n proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a *prima facie* case of obviousness based upon the prior art." In re Fritch, 972 F.2d 1260, 23 USPQ 2d 1780 (Fed. Cir. 1992).

The Examiner alleges that it would have been obvious to modify the teachings of Stromme to control the interior ejection angle as set forth in Keller in order to obtain more accurate reading by controlling the position of the sheet with respect to the detection device. This does not appear to be the case. Stromme discloses a method and apparatus for document processing. In particular, the device is capable of receiving and evaluating a stack of currency bills. A transport mechanism transports the bills, one at a time, from an input receptacle to an output receptacle.

Docket No. 500.43486X00
Serial No. 10/772,386
Office Action dated May 17, 2006

The device includes sensors located in an evaluation region (247) that is in close proximity to the surface of the transport mechanism, and hence, the bills. See Fig. 4.

Keller, on the other hand, discloses an entirely different and unrelated apparatus from Stromme. Keller discloses a sheet material transport system, or conveyor, for flexible items. The apparatus includes a treatment station, located between successive roller groups, that is capable of inducing a bend in the flexible item being transported. As discussed in the background and abstract, the system of Keller is designed for use with items such as film for some type of processing or treatment. For example, the system can be used to move photographic papers through a drying station in a photographic developing machine.

Stromme and Keller appear to be in entirely different fields of endeavor. Specifically, Stromme relates to an apparatus for receiving and dispensing currency. Applicants note that the currency being received and dispensed is not wet and does not require further processing. Keller relates to a device for transporting materials being processed such as photographic papers. It is not clear why a skilled artisan presented with the teachings of Stromme would seek out a photographic developing machine in order to identify changes that would improve the currency receiving/dispensing apparatus of Stromme. Importantly, Keller's patent and teachings were certainly available to Stromme. Yet, Stromme did not make any attempts to incorporate the feature of Keller in his device in order to improve functionality, as alleged by the Office Action. There is simply no motivation to modify the device of Stromme based on the teachings of Keller for purposes of arriving at the claimed invention.

Docket No. 500.43486X00
Serial No. 10/772,386
Office Action dated May 17, 2006

Even if such motivation were to exist, which it does not, modification of Stromme based on Keller would necessarily result in an inoperable device. More particularly, the apparatus of Stromme utilizes an evaluation region that is in close proximity to the transport mechanism and currency. It would therefore be necessary to increase the distance between the evaluation region and transport mechanism. Contrary to the allegations made in the Office Action, such changes would appear to reduce reading accuracy. Furthermore, Stromme does not provide any disclosure or suggestion that would lead one to believe that increasing the distance between the evaluation region and transport mechanism would subsequently improve reading accuracy. The only motivation for combining these references appears to be hindsight reconstruction based on the claims themselves. There is simply no realistic expectation of success.

Notwithstanding the foregoing, Applicants' review of the cited references has also failed to reveal any disclosure or suggestion for some of the features now incorporated in independent claim 1. Specifically, none of the references appears to disclose or suggest a tangential line that extends in the manner in which the claimed tangential line extends. Stromme is completely silent on this particular feature and the figures do not reveal whether any such feature can be extrapolated. It appears as though the Office Action is utilizing hindsight reconstruction with respect to what Stromme discloses or suggests in order to arrive at the claimed invention. Keller does not appear to provide any disclosure or suggestion for a sheet supporting surface area that is contactable with the sheet transferred by the sheet transfer member. This is clearly illustrated in the drawing of Keller, which illustrates plates 22 not being in contact with the sheet transferred by the sheet transfer member. The

Docket No. 500.43486X00
Serial No. 10/772,388
Office Action dated May 17, 2006

cited references simply fail to provide any disclosure or suggestion for features recited in independent claim 1 such as:

wherein as seen in a view direction perpendicular to a thickness direction of the one of the sheets and a transferred direction of the one of the sheets transferred by the sheet transfer member, a tangential line of a boundary point of the transfer surface of the sheet transfer member from which boundary point the one of the sheets starts to separate away from the transfer surface extends in a side area of an imaginary straight line passing the information reading point and the boundary point, which side area including the sheet supporting surface area.

It is therefore respectfully submitted that independent claim 1 is allowable over the art of record.

Claims 3, 5 – 8, 10 – 12, 14, 15, and 17 – 20 depend, either directly or indirectly, from Independent claim 1 and are therefore believed allowable for at least the reasons set forth above with respect to independent claim 1. In addition, these claims each introduce novel elements that independently render them patentable over the art of record.

IV. Rejections Under 35 USC §103

Claims 4 – 9, 15, and 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Stromme in view of Keller. Regarding this rejection, the Office Action alleges that the combination of references discloses the limitations recited in these claims. Applicants respectfully disagree.

As previously disclosed, claims 5 – 8 and 15 depend from independent claim 1, and are therefore believed allowable for at least the reasons set forth above with respect to independent claim 1. In addition, these claims also recite novel elements that are not disclosed by the art of record. Furthermore, as previously discussed

Jocket No. 500.43486X00
Serial No. 10/772,386
Office Action dated May 17, 2006

with respect to claim 1, the combination of Stromme and Keller fails to disclose or suggest certain features that are now recited in independent claim 1.

As amended, Independent claim 24 defines an apparatus for handling sheets that comprises:

a sheet transfer member being movable, and having a transfer surface contactable with one of the sheets so that the one of the sheets is transferred by the sheet transfer member,

a sheet supporting surface area being contactable with the one of the sheet transferred by the sheet transfer member,

an information reader arranged to face to the one of the sheet transferred by the sheet transfer member and having in an information reading range including an information reading point, in which reading range an information is securely readable from the one of the sheets, and

a pneumatic blower for applying a pneumatic pressure to the one of the sheets in such a manner that the one of the sheets is urged by the pneumatic pressure toward the sheet supporting surface area.

According to at least one feature of independent claim 24, a pneumatic blower is used to apply a pneumatic pressure to the sheet being transferred such that the sheet is urged toward the sheet supporting area as a result of the pressure.

As admitted in the Office Action, Stromme simply fails to disclose or suggest this particular feature. Keller, on the other hand, discloses a pneumatic blower which functions differently from that of the claimed invention. The pneumatic blower of Keller does not urge the sheet towards the sheet supporting surface area, as set forth in the claimed invention. In fact, Keller does not provide a sheet supporting surface area that is contactable with the sheet being transferred by the sheet transfer member. Accordingly, it is simply not possible for Keller to provide a pneumatic blower that urges the sheet towards the sheet supporting surface area, as recited in independent claim 24.

Jocket No. 500.43486X00
Serial No. 10/772,386
Office Action dated May 17, 2006

It is therefore respectfully submitted that Independent claim 24 is allowable of the art of record.

Independent claim 9 defines an apparatus for handling sheets that comprises, in part:

a press member being opposed to the sheet transfer member in such a manner that the one of the sheets is allowed to be pressed between the sheet transfer member and the press member at a boundary point in a press direction, and

wherein an imaginary straight line passing the boundary point in a direction perpendicular to the press direction intersects the sheet supporting surface area as seen in a view direction perpendicular to a thickness direction of the one of the sheets and a transferred direction of the one of the sheets transferred by the sheet transfer member.

According to some of the features of independent claim 9, a press member is provided that is opposed to sheet transfer member in such a manner that the sheet is allowed to be pressed between the sheet transfer member and the press member at a boundary point in a press direction. Additionally, an imaginary straight line passing the boundary point in a direction perpendicular to the press direction intersects the sheet supporting surface area when viewed in a direction perpendicular to the thickness direction of the sheet and a transferred direction of the sheet transferred by the sheet transfer member.

Applicants' review of Stromme has not revealed any clear disclosure or suggestion for an imaginary straight line as set forth in the claimed invention. Further, it is unclear from the figures whether such a feature is even attainable. Again, it appears as though the Office Action is using impermissible hindsight reconstruction in order to sustain a rejection of the claimed invention. Additionally, Applicants review of Keller has also failed to reveal any disclosure or suggestion for a sheet supporting surface area that is contactable with the sheet transferred by the

Docket No. 500.43486X00
Serial No. 10/772,386
Office Action dated May 17, 2006

sheet transfer member. Rather, the figure of Keller clearly illustrates that the plates (22) are not contactable with the sheet transferred by the sheet transfer member.

It is therefore respectfully submitted that independent claim 9 is allowable over the art of record.

Claim 12 was rejected under 35 U.S.C. 103(a) as being unpatentable over Stromme in view of Winkler. Claim 10 was rejected under 35 U.S.C. 103(a) as being unpatentable over Stromme in view of Keller, and further in view of Tschudin-Mahrer. Claims 17 – 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Stromme in view of Steiner.

These claims, however, depend from independent claim 1, and are therefore believed allowable for at least the reasons set forth above with respect to independent claim 1.

Claims 21 and 22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Stromme in view of Fox.

As amended, independent claim 21 defines an apparatus for handling sheets that comprises, in part:

a distance detector arranged to face to the one of the sheets so that a value changing in accordance with a change in distance between the one of the sheets and the information reader is measured by the distance detector, and

wherein the information reader includes a light emitter for projecting a light to the one of the sheets and a light receiver for receiving the light reflected by the one of the sheets to read the information from the one of the sheets, and the light emitter is controlled in accordance with the value in such a manner that an intensity of the light emitted by the light emitter is increased in accordance with the increase of distance between the one of the sheets and the information reader.

Docket No. 500.43488X00
Serial No. 10/772,386
Office Action dated May 17, 2006

According to the apparatus defined by independent claim 21, a distance detector is arranged to face the sheet being transferred so that a value changing in accordance with a change in distance between the sheet and information reader is measured by the distance detector. Additionally, the information reader includes a light emitter that projects a light to the sheet and a light receiver for receiving the light reflected by the sheet in order to read the information from the sheet. The light emitter is also controlled in such a manner that an intensity of the light emitted therefrom is increased in accordance with the increase in distance between the sheet and the information reader.

The Office Action alleges that the combination of Stromme and Fox discloses these particular features. This does not appear to be the case. As admitted in the Office Action, Stromme fails to disclose a distance detector as set forth in the claimed invention. The Office Action alleges that Fox discloses a distance detector as set forth in independent claim 21. However, the Office Action is unable to identify where such feature is disclosed or suggested by Fox. Fox does not appear to provide any disclosure or suggestion for a light emitter that can be controlled such that an intensity of the light being emitted is increased in accordance with an increase in distance between the sheet being transferred and the information reader, as recited in independent claim 21.

It is therefore respectfully submitted that independent claim 21 is allowable over the art of record.

Docket No. 500.43486X00
Serial No. 10/772,386
Office Action dated May 17, 2006

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NOV 17 2006

V. Conclusion

For the reasons stated above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a Notice of Allowance is believed in order, and courteously solicited.

If the Examiner believes that there are any matters which can be resolved by way of either a personal or telephone interview, the Examiner is invited to contact Applicants' undersigned attorney at the number indicated below.

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NOV 17 2006

Jocket No. 500.43486X00
Serial No. 10/772,386
Office Action dated May 17, 2006

AUTHORIZATION

Applicants request any shortage or excess in fees in connection with the filing of this paper, including extension of time fees, and for which no other form of payment is offered, be charged or credited to Deposit Account No. 01-2135 (Case: 500.43486X00).

Respectfully submitted,
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